

**ABSTRACT OF THE INVENTION**

The invention provides a method of determining a comparative expression profile in an individual by comparing the expression levels of a sample of molecules in a population of molecules in a specimen from the individual with a health-associated reference expression region of the sample of molecules, wherein expression levels within the health-associated reference expression region indicate a reference expression profile and wherein expression levels outside the health-associated reference expression region indicate a perturbed expression profile. The invention also provides methods of diagnosing a disease or a health state in an individual by comparing the expression level of a sample of molecules in a specimen from the individual with a health-associated reference expression region of the sample of molecules. The invention additionally provides a method of classifying a population by drug responsiveness.